PHL

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July 14, 2006

Hand Delivered and by Electronic Mail

Ms. Patricia Leary
Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670

SUBJECT: COMMENTS ON TENTATIVE WASTE DISCHARGE REQUIREMENTS FOR THE MOUNTAIN HOUSE COMMUNITY SERVICES DISTRICT

Dear Ms. Leary:

On behalf of the Mountain House Community Services District (MHCSD), we appreciate the opportunity to provide comments (Attachment 1) on the Tentative Waste Discharge Requirements (WDRs) for the Mountain House Community Services District Wastewater Treatment Facility issued on June 14, 2006. The majority of the issues raised in Attachment 1 are technical and factual corrections, which we believe can be easily addressed prior to adoption of the final WDRs. These comments are in addition to comments on the administrative draft WDRs RBI prepared and submitted to you on June 5, 2006, which are incorporated here by reference.

Please contact me at (916) 714-1802 if you have any questions.

Sincerely,

ROBERTSON-BRYAN, INC.

Michael D. Bryan, Ph.D.
Partner and Principal Scientist

cc: via electronic copy only

Barry Hilton, Ph.D., RWQCB, Central Valley Region
David Carlson, Ph.D. RWQCB, Central Valley Region
Paul Sensibaugh, General Manager, MHCSD
Duane Grimsman, Sterling Pacific Assets
Roberta Larson, Somach, Simmons, and Dunn
Paul Rydzynski, PACE

Attachments:

1 - Comments on the Tentative NPDES Permit
2 – Technical Memorandum No. 3 prepared by PACE

COMMENTS
ON BEHALF OF THE
MOUNTAIN HOUSE COMMUNITY SERVICES DISTRICT
REGARDING
TENTATIVE WASTE DISCHARGE REQUIREMENTS
FOR
NPDES NO. CA0084271
Issued June 14, 2006

MOUNTAIN HOUSE COMMUNITY SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY
SAN JOAQUIN COUNTY

Submitted July 14, 2006

A. FACTUAL AND TECHNICAL CORRECTIONS

1. Limitations and Discharge Requirements

(1) p. 9 & 10, Effluent Limitations, Dibromochloromethane. The effluent limitations currently shown for dibromochloromethane, 0.28 µg/L (AMEL) and 0.41 µg/L (MDEL), are incorrect. The effluent limitations for dibromochloromethane should be 0.41 µg/L (AMEL) and 0.82 µg/L (MDEL), as demonstrated by calculations presented in Table F-12 (p. 58) of the Fact Sheet.

(2) p. 11, Interim Effluent Limitations. The interim limitations presented on this page are incorrect. According to procedures used to derive the interim limitations, as described on pages 60-61 of the Fact Sheet, the interim maximum daily effluent limitations should be as follows:

- Aldrin – 0.016 µg/L
- Bis(2-ethylhexyl)phthalate – 23.0 µg/L
- Cyanide – 17 µg/L
- Heptachlor – 0.072 µg/L

A related edit is needed on page 61 of the Fact Sheet. The last sentence of the first full paragraph should read, "Using Table 5-2 of the TSD results in an interim effluent limitation of ~~14.6~~ 23.0 µg/L." Also, the aldrin limit should be 0.016 (the result of 0.005 x 3.11) µg/L in Table F-14, not 0.014 µg/L.

(3) p. 12, Receiving Water Limitation #7, pH. Page 63 of the Fact Sheet states, "an averaging period of 30 days has been applied to the Basin Plan receiving water objective for changes in pH." However, this was not stated directly in the receiving water limitation #7 on page 12, which is the basis for compliance assessment. We request that the 30-day averaging period language in the Fact Sheet be included in receiving water limitation #7 to remove any ambiguity regarding how compliance is to be assessed.

(4) p. 19, item h, Final Effluent Limitations for Electrical Conductivity (EC). The first sentence should reference Special Provision VI.C.2.d, not VI.C.2.c.

2. Monitoring and Reporting Program

(5) p. 3-4, IV. Effluent Monitoring Requirements, A. Monitoring Location M-001.

a. The requirement to monitor for Dalapon is unnecessary. The Mountain House Community Services District (MHCSD) monitored for this compound for 4 quarters at a reporting limit of 10 µg/L as required by the Central Valley Regional Water Quality Control Board (RWQCB) and has submitted this data to the RWQCB. Furthermore, there is no effluent limitation for Dalapon. Lastly, the footnote #6 does not apply and should be deleted, because Dalapon is not a priority pollutant and, thus not addressed in the SIP appendix referenced in the footnote.

   In addition, CMC (0.02 µg/L) and CCC (0.014 µg/L) criteria for Dalapon cited in Table F-5 of the Fact Sheet (p. 54) appear to actually be the California Department of Fish and Game's (CDFG) chlorpyrifos criteria, given the citation for the criteria is "California Department of Fish and Game, 2000." Review of the RWQCB's "Water Quality Goals" updated August 2003 identifies a DHS primary MCL for Dalapon of 200 µg/L, and a freshwater aquatic life "instantaneous maximum" criterion of 110 µg/L cited in U.S. EPA's Water Quality Criteria, 1972 (also referred to as the Blue Book), but no CDFG criteria.

   The maximum concentration detected in the effluent was 0.55 µg/L. Following the U.S. EPA's Technical Support Document for Water Quality-based Toxics Control (TSD) procedure, which is used by the RWQCB to assess reasonable potential for non-priority pollutants, the maximum projected effluent concentration is determined as 0.55 µg/L x 4.7[1] = 2.6 µg/L. The sample reporting limits and maximum projected concentration of 2.6 µg/L are well below the DHS MCL and U.S. EPA's 1972 instantaneous maximum criterion for freshwater aquatic life.

   Sufficient data have been collected in accordance with the RWQCB's original data request to the MHCSD in September 2001 to assess reasonable potential and the need for effluent limitations. Based on the above information, we request that the monitoring requirement for Dalapon be deleted.

b. The requirement to monitor for pentachlorophenol is unnecessary. The MHCSD monitored for this compound for 4 quarters at a reporting limit of 1 µg/L as required by the RWQCB and has submitted this data to the RWQCB. Furthermore, there is no effluent limitation for pentachlorophenol.

   Several corrections to the criteria cited for pentachlorophenol in Table F-5 of the Fact Sheet (p. 54) are required. The "Water & Org" criterion should be 0.28 µg/L according to the California Toxics Rule (CTR), not 0.27 µg/L; and the DHS MCL is 1 µg/L, not 0.5 µg/L. The CTR freshwater aquatic life criteria for pentachlorophenol are 5.5 µg/L (CMC)

[1] From Table 3-1 of the TSD for a sample size equal to 4 and a coefficient of variation equal to 0.6, the default when the number of samples is less than 10.

and 3.5 µg/L (CCC) at a pH of 6.5, the lowest possible pH allowed by the effluent limits and the Basin Plan objective and, thus, the lowest possible criteria for the receiving water. The maximum detected effluent concentration was 0.065 µg/L, well below the CTR aquatic life and human health criteria, and the DHS MCL.

Sufficient data have been collected in accordance with the RWQCB's original data request to the MHCSD in September 2001 to assess reasonable potential and the need for effluent limitations. Based on the above information, we request that the monitoring requirement for pentachlorophenol be deleted.

3. Fact Sheet

(6) p. 11, 2nd paragraph regarding EC and temperature. The first two sentences should be modified as follows, "With respect to salinity, this Order establishes an interim effluent limit of ~~1000~~ 1875 µmhos/cm as electrical conductivity (EC) based on the Discharger's current level of performance. ~~This interim effluent limit is essentially the same as the secondary maximum contaminant level (MCL) for protection of municipal and domestic supply (1000 µmhos/cm).~~ Considerable dilution…" to reflect the fact that the interim limit is 1875 µmhos/cm.

The last sentence of this paragraph states, "With respect to temperature, the Discharger must comply with a time schedule to reduce the effluent temperature to meet the Basin Plan standards or to comply with an exemption granted under the Thermal Plan." At this time, there is not enough information to know whether effluent temperature needs to be reduced, hence, the Special Provision VI.C.2.b for a temperature study. This sentence is not relevant should be deleted.

(7) p. 32-33, and 56, Effluent Limitations, Aluminum. The following is stated in the permit on p. 26 of the Fact Sheet: "Based on 15 samples collected in 2004-2005, the lowest receiving water hardness was measured as 100 mg/L as $CaCO_3$." In addition, the lowest effluent hardness on record is 91 mg/L as $CaCO_3$. Because water hardness in the receiving waters is expected to always be above 91 mg/L as $CaCO_3$, the U.S. EPA's recommended 87 µg/L chronic aquatic life criteria used as the basis for this permit limitation is not appropriate (see **Attachment #2**). U.S. EPA's recommended aluminum criterion for chronic protection of aquatic life for waters having pH at or above 6.5 and hardness above 91 mg/L as $CaCO_3$ is 750 µg/L. The aluminum effluent limitation should be revised accordingly. Based on the above, edits are also necessary on pages 32-33 of the Fact Sheet regarding U.S. EPA's recommended aluminum criteria for this site.

Furthermore, Table F-6 of the Fact Sheet (p. 56) contains incorrect ECA, AMEL, and MDEL multipliers. The ECA and AMEL multipliers are for a coefficient of variation (CV) equal to 0.6 and the AMEL multiplier is for a monitoring frequency of 8 times per month; the monitoring frequency is 1 time per month. The MDEL multiplier used is actually a MDEL/AMEL multiplier, which is used for deriving limitations from human health criteria, not aquatic life criteria. The aluminum effluent data submitted to the RWQCB are summarized below. One-half of the reporting limit is used to calculate the CV, consistent with the SIP.

Date	Result (µg/L)	Result for Effluent Limitation Calculations (µg/L)
6/23/2004	190	190
7/21/2004	< 180	90
8/18/2004	< 180	90
9/9/2004	200	200
10/13/2004	95	95
11/17/2004	< 44	22
12/15/2004	< 44	22
1/12/2005	< 180	90
2/9/2005	< 180	90
3/9/2005	< 47	23.5
4/13/2005	160	160
5/11/2005	170	170
6/15/2005	< 50	25
8/17/2005	540	540
9/14/2005	220	220
10/5/2005	76	76
Average		**131.5**
Std Deviation		**127.4**
CV		**0.969**

Based on the above data set characteristics and CV, Table F-6 should be modified as follows:

Table F-6
WQBEL Calculations for Aluminum

Parameter	Acute	Chronic
Criteria (µg/L)	750	87
Dilution Credit	No Dilution	No Dilution
ECA	750	87
ECA Multiplier	~~0.321~~ 0.210	~~0.527~~ 0.382
LTA	~~241~~ 157.5	~~46~~ 33.23
AMEL Multiplier		~~1.38~~ 1.92
AMEL (µg/L)		**~~63~~ 64**
MDEL Multiplier		~~2.25~~ 4.77
MDEL (µg/L)		**~~103~~ 158**

Based on the above, the aluminum AMEL and MDEL on pages 9 and 10 of the Limitations and Discharge Requirements should be revised, as should related text on pages 33, 53, and 54 of the Fact Sheet, and the Time Schedule Order.

(8) p. 33-35, and p. 57, Ammonia Effluent Limitation Derivation. There are inconsistencies in the derivation of the ammonia effluent limitation:

- CMC of 2.95 mg/L cited on p. 34 is incorrect; should be 2.14 mg/L.
- Temperatures cited on p. 35 do not match temperatures shown in Table F-7 (p. 57). Furthermore, the temperatures do not correspond to temperatures in data set submitted to the RWQCB.
- Effluent limitations cited on p. 35 do not match those on Table F-7.

- Table F-7 contains errors in the chronic criteria calculation. Also, the AMEL multiplier cited should be based on n = 4, or 1.55 (as monitoring is 1/week or 4 times per month)

(9) p. 36, regarding bis(2-ethylhexyl)phthalate. In the 2nd to last sentence of the first paragraph, the date placeholder should be replaced with "June 5, 2006." Also, in the 2nd paragraph, first sentence, the reference should be to special provision VI.C.4.c., not VI.C.4.e. The latter section does not exist.

(10) p. 37 and 58, Cyanide Effluent Limitation Derivation. Table F-11 of the Fact Sheet (p. 58) contains incorrect ECA, AMEL, and MDEL multipliers. The ECA multipliers are for a coefficient of variation (CV) equal to 0.67, and the AMEL multiplier is for a CV of 0.7 and a monitoring frequency of 8 times per month; the monitoring frequency is 1 time per month. The MDEL multiplier used is actually a MDEL/AMEL multiplier, which is used for deriving limitations from human health criteria, not aquatic life criteria. The cyanide effluent data submitted to the RWQCB are summarized below. One-half of the reporting limit is used to calculate the CV, consistent with the SIP.

Date	Result (µg/L)	Result for Effluent Limitation Calculations (µg/L)
5/27/2004	5.5	5.5
6/23/2004	< 17	8.5
7/21/2004	< 5	2.5
8/18/2004	8.9	8.9
9/9/2004	< 17	8.5
10/13/2004	< 5	2.5
11/17/2004	< 5	2.5
1/12/2005	< 17	8.5
2/9/2005	< 17	8.5
3/9/2005	< 2.2	1.1
4/13/2005	< 2.4	1.2
5/11/2005	10	10
6/15/2005	< 2.0	1.0
7/20/2005	< 2.0	1.0
8/17/2005	4.7	4.7
9/14/2005	< 2.0	1.0
Average		**4.7**
Std Deviation		**3.5**
CV		**0.740**

Based on the above data set characteristics and CV, Table F-11 should be modified as follows:

Table F-11 WQBEL Calculations for Cyanide		
Parameter	Acute	Chronic
Criteria (µg/L)	22	5.2
Dilution Credit	No Dilution	No Dilution
ECA	22	5.2
ECA Multiplier	~~0.283~~ 0.267	~~0.483~~ 0.463
LTA	~~6.23~~ 5.87	~~2.51~~ 2.41
AMEL Multiplier		~~1.45~~ 1.69
AMEL (µg/L)		**~~3.6~~ 4.1**
MDEL Multiplier		~~2.45~~ 3.74
MDEL (µg/L)		**~~8.9~~ 9.0**

Furthermore, Footnote 1 should be deleted from Table F-11, as the criteria are from the CTR, not U.S. EPA.

Based on the above, the aluminum AMEL and MDEL on pages 9 and 10 of the Limitations and Discharge Requirements should be revised, as should related text on pages 37, 53 and 54 of the Fact Sheet.

(11) p. 41, Nitrite. The last sentence should be modified as follows, "This Order requires the Discharger to commence operation of the Phase II WWTF and demonstrate compliance with the effluent limitation for ~~nitrate~~ nitrite prior to discharge to Old River."

(12) p. 49, Effluent Salinity Limitations. The last paragraph, 3rd sentence should be modified as follows to reference the correct provision, "Special Provisions ~~VI.C.4.d.~~ VI.C.2.c of this Order requires the Discharger to perform a systematic and comprehensive technical evaluation of each major component of the Facility's waste treatment and control to determine BPTC for each waste constituent, as required by Resolution 68-16."

(13) p. 53, Table F-4, Statistics for Effluent Constituents with Detectable Results. The footnotes for 2,4,5-TP (Silvex), Dalapon, Pentachlorophenol, and Thallium state monitoring is required. The MHCSD monitored for these constituents at the frequency and reporting limits specified by the RWQCB in its letter request to the MHCSD, and has submitted this data to the RWQCB.

a. For reasons detailed in Comment # 5, no additional monitoring for Dalapon or pentachlorophenol is necessary and this footnote and should be deleted and the relevant data statistics inserted.

b. In regards to Thallium, the applicable criteria for determining reasonable potential include the DHS MCL of 2 µg/L and the CTR human health criterion for the consumption of water and organisms of 1.7 µg/L. There are no CTR criteria for protection of aquatic life, and there are no U.S. EPA recommended criteria for protection of aquatic life. The maximum detected concentration was 0.005 µg/L; the remaining concentrations were lower or non-detect (RL = 0.002 – 1 µg/L). These concentrations and reporting limits are well below applicable human health criteria. Sufficient data have been collected in accordance with the RWQCB's original data

request to the MHCSD in September 2001 to assess reasonable potential and the need for effluent limitations. Based on the above information, we request that the footnote specifying a monitoring requirement for thallium be deleted.

c. In regards to 2,4,5-TP (Silvex), the applicable criteria for determining reasonable potential include the DHS MCL of 50 µg/L. Silvex is not a priority pollutant, so there are no CTR criteria for this constituent, and there are no U.S. EPA recommended criteria for the protection of aquatic life.

   The maximum detected concentration in the effluent was 0.24 µg/L; the remaining concentrations were lower or non-detect (RL = 1 µg/L). Following the TSD procedure, which is used by the RWQCB to assess reasonable potential for non-priority pollutants, the maximum projected effluent concentration is determined as 0.24 µg/L x 4.7^2 = 1.1 µg/L. The sample reporting limits and maximum projected concentration of 1.1 µg/L are well below the DHS MCL. As such, sufficient data have been collected in accordance with the RWQCB's original data request to the MHCSD in September 2001 to assess reasonable potential and the need for effluent limitations. Based on the above information, we request that the footnote specifying a monitoring requirement for 2,4,5-TP (Silvex) be deleted.

(14) p. 57, Table F-8, Bis(2-ethylhexyl)phthalate. The MDEL/AMEL multiplier is incorrectly shown as 1.6, and should be revised to 2.01. The resulting AMEL and MDEL calculations, nevertheless, are correct as shown.

(15) p. 67-68, B. Special Provisions, 1. Reopener Provisions. This section of the Fact Sheet contains errors in the cross-references to the Special Provisions section of the Limitations and Discharge Requirements (pages 18-19). Specifically, the following corrections are warranted on pages 67-68:

- b. Mercury – cross reference should be to Special Provision VI.C.1.b
- d. Temperature – this should be deleted from p. 67 of the Fact Sheet. There is no reopener provision related to temperature in Section VI.C.1 of the permit.
- e. General Order for Collection Systems – this should be deleted in its entirety as a general order for collection systems has been developed and acknowledged in the permit.
- f. Pollution Prevention Plan – cross reference should be to Special Provision VI.C.1.d
- g. Whole Effluent Toxicity – cross reference should be to Special Provision VI.C.1.e

(16) p. 73, Compliance Schedules. Item #4.c should reference Special Provision VI.C.4.c

[2] From Table 3-1 of the TSD for a sample size equal to 4 and a coefficient of variation equal to 0.6, the default when the number of samples is less than 10.

B. REQUEST FOR ALTERNATE DISCHARGE LOCATION

The MHCSD is requesting that the permitted discharge location be changed from the current location specified in the Tentative Permit to a location closer to the WWTP at 300 feet downstream of Wicklund Cut. Technical Memorandum No. 3 prepared by PACE (Attachment 2), provides supporting information for this request. The effect of the discharge on water quality of Old River is expected to be the same at both locations, especially since no dilution credit has been provided in the calculation of effluent limitations.
The potential use of either or both outfall locations was addressed in the applications prepared for all of the regulatory permits required for diffuser placement, including the Department of Fish and Game Section 1600 Streambed Alteration Agreement, Section 401 Water Quality Certification (and associated waiver of WDRs for minor dredging activity), U.S. Army Corps of Engineers (USACE) Section 404 nationwide permits for dredge and fill activities and associated biological assessments prepared for Endangered Species Act consultations with the U.S. Fish and Wildlife Service (USFWS) and NOAA Fisheries. The applicant has received the Section 1600 and Section 401 approvals from the agencies. The biological opinions that will be prepared by USFWS and NOAA Fisheries are pending. The USACE Section 404 nationwide permit requires completion of the biological opinions from USFWS and NOAA Fisheries and its issuance is not anticipated to result in any material change to the proposed project.

C. REQUEST FOR MODIFIED MONITORING LOCATIONS

The MHCSD is requesting modified receiving water monitoring locations. Details regarding this request are provided in Technical Memorandum No. 3 prepared by PACE (Attachment 2).

D. REQUESTS FOR LANGUAGE MODIFICATIONS

1. Limitations and Discharge Requirements

(17) p. 6, Finding II. M. , Stringency of Requirements for Individual Pollutants. This finding states that none of the terms of the tentative permit are more stringent than required to implement the Clean Water Act (CWA). MHCSD disagrees with this finding as written. The tentative permit contains a number of effluent limitations more stringent than required by federal law. For example, both mass and concentration based limits are included, contrary to federal regulations which provide that mass limits are not required where objectives and other limits in the permit are concentration-based (40 C.F.R. §122.45(f)(ii)). The permit also includes daily maximum limits, which are only allowed under federal law when longer-term limits (monthly and weekly averages) have been demonstrated to be impracticable (40 C.F.R. §122.45(d)(2)). Perhaps most obviously, tertiary treatment is not a requirement of federal law. (40 C.F.R. Part 133). This finding should be deleted or modified to be legally and factually accurate prior to adoption of the final permit.

(18) p. 8, Discharge Prohibition III.A. The MHCSD is required to enroll for coverage under Order 2006-003, the Statewide Waste Discharge Requirements for Sanitary Sewer Systems. Thus, the collection system will be regulated under a separate order. This should be acknowledged in the discharge prohibition, which should be revised as follows:

"Discharge of wastewater at a location in a manner different from that described in this Order or other applicable State or Regional Board order is prohibited."

(19) p. 18, Reopener Provisions, C.1.b, Mercury. The reopener states that the RWQCB may reevaluate the interim mass limits and the "need for a mercury offset program to reevaluate the interim mercury mass loading limitation(s) and the need for a mercury offset program for the Discharger." While the MHCSD supports the *concepts and goals* of an offset program as a viable tool to provide dischargers an opportunity to comply with effluent limits, no viable offset program for mercury has yet been developed in California. In addition, it is crucial that any offset program remain *voluntary* and simply another tool by which to attain compliance.

The final sentence of the reopener should be revised as follows:

"If the Regional Water Board determines that a voluntary mercury offset program is feasible for and desired by ~~Dischargers subject to a NPDES permit~~ the Discharger, then this Order may be reopened to reevaluate the interim mercury mass loading limitation(s) and if appropriate, to incorporate provisions recognizing the Discharger's participation in ~~the need for~~ a mercury offset program ~~for the Discharger~~."

(20) p. 18, Reopener Provisions, C.1.f Dilution Credits. The following language modifications are requested:

".....Section IV.c.2.b., the Discharger has not provided adequate information for the allowance of dilution credits.~~, most importantly, real-time flow monitoring data in the vicinity of the discharge~~. Should adequate data be developed and provided to RWQCB staff, ~~a real-time flow monitoring station be installed in the vicinity of the discharge,~~ and if this information ~~real-time flow monitoring data from the station~~ demonstrates that sufficient dilution flows are available in Old River, this Order may be reopened to allow dilution credits based on the ~~real-time flow monitoring~~ data."

Request that the same edits be made to the Fact Sheet, page 26, xii Dilution Credits for Future Permits, and Fact Sheet Page 68, h Dilution Credits.

(21) p. 23, Best Management Practices 3.c. MHCSD appreciates the Regional Board's recognition that a site-specific study is required to determine the appropriate final effluent limitations for electrical conductivity (EC) and provision of an interim limitation of 1875 umhos/cm. However, the District is concerned about the statement in Best Management Practices Provision 3.c that "the Regional Board finds that a monthly average salinity of 1000 umhos/cm as electrical conductivity (EC) is a reasonable intermediate goal that can be achieved in this permit term." [emphasis added] While recent EC levels have been less the 1000 umhos/cm, and measures will be implemented to reduce EC levels, the utility in establishing a numeric goal of 1000 umhos/cm to be achieved within the permit term is unclear, both in terms of the purpose of this goal and whether it can be achieved. We request that this "goal" language be removed from the tentative permit, including the Fact Sheet.

(22) p. 29-30, Compliance Determinations. These compliance determination sections should be revised. First of all, enforcement determinations must be made by the RWQCB after due process has been provided and a violation has been alleged. The permit itself cannot determine whether a violation has occurred. In addition, the parentheticals and statements about how many days or instances of non-compliance exist should be removed or amended to add the qualifier of "potentially." As an example, an exceedance of a monthly average limit would not necessary result in 30 or 31 violations. Under the State Water Resources Control Board's policies related to enforcement of mandatory minimum penalties, this exceedance would NOT result in 31 days of violation, only one. Similarly, a single operational upset would be just one violation, so this characterization is not accurate.

For the instantaneous minima and maxima, a question exists as to whether more than one violation can occur since both the Water Code at section 13385 and the Clean Water Act at section 1319 both discuss discharges in terms of "for each day" and "per day of violation." For these reasons, the finding of a violation for each sample taken is likely inaccurate.

The Compliance Determination paragraphs should be revised as follows:

A. Average Monthly Effluent Limitation

"If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, the Discharger ~~will~~ may be considered out of compliance for each day of that month for that parameter ~~(e.g., resulting in 31 days of non-compliance in a 31-day month)~~. The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. For purposes of Mandatory Minimum Penalties, a violation of an AMEL will be considered as one violation. Depending on the nature of the violation, the RWQCB may, however, pursue discretionary civil penalties for the remaining days of violation. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger ~~will~~ may be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

B. Average Weekly Effluent Limitation (AWEL)

If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, this will represent a single violation, though the Discharger ~~will~~ may be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. For purposes of Mandatory Minimum Penalties, a violation of an AWEL will be considered as one violation. Depending on the nature of the violation, the RWQCB may, however, pursue discretionary civil penalties for the remaining days of violation. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Discharger ~~will~~ may be considered out of compliance for that

calendar week. For any one-calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.

2. Monitoring and Reporting Program

(23) p. 5, Acute Toxicity Testing. The MRP requires weekly acute toxicity testing. This frequency is excessive, relative to other permits in the region, most of which require quarterly acute bioassay testing. If the more frequent testing is being required because this will be a new discharger, then we request the frequency be changed from weekly to monthly for the first year, then quarterly thereafter.

(24) p. 8-9, VIII. Receiving Water Monitoring Requirements, A. Surface Water Monitoring.

It is unnecessary to conduct receiving water monitoring for constituents that are effectively regulated via effluent limitations, and it has typically not been required of other dischargers in the region. Consequently, we request that the following be removed from the receiving water monitoring requirements:

Ammonia,
Aluminum,
Iron,
Mercury
Trihalomethanes, and
Bis(2-ethylhexyl)phthalate.

Footnote 7, which applies to aluminum, iron, mercury, and bis(2-ethylhexyl)phthalate, states "Sampling only required at R-001." The rationale for this is not readily apparent. No dilution credit has been granted for these constituents, and should the MHCSD further pursue dilution credits, data required by the RWQCB for such credit would be collected at that time.

Finally, analyzing for standard minerals and priority pollutants is required for the effluent and, therefore, is not needed in the receiving waters. RWQCB staff have not requested monitoring of standard minerals or priority pollutants in the receiving waters for other recently issued NPDES permits in Region 5. The discharger has recently completed the 13267 monitoring, which addresses most of these constituents, including all priority pollutants. For these reasons, we request that standard minerals and priority pollutants be deleted from the receiving water monitoring requirement.

TECHNICAL MEMORANDUM NO. 3

NPDES Permit Renewal
Mountain House Wastewater Treatment Plant

Proposed Relocation of Old River Outfall and Modification of Old River Monitoring Locations

Prepared for:

Mountain House Community Services District
and
California Regional Water Quality Control Board
Central Valley Region

Order No. R5-2006-XXXX
NPDES No. CA0084271

Prepared by:

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#7004E

July 14, 2006

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FIGURES

ATTACHMENT

PROPOSED RELOCATION OF MOUNTAIN HOUSE WWTP OUTFALL

This memorandum provides information requested from the RWQCB to justify a proposed relocation of the Mountain House Community Wastewater Treatment Plant (WWTP) effluent outfall from its current location specified in the Tentative WDR 's to a location closer to the WWTP.

Existing Permit Outfall Location

The existing location for Outfall 001 as specified in the tentative WDR 's is in the Old River, approximately 1000 feet upstream of its confluence with Mountain House Creek. The latitude and longitude are:

Latitude	37° 47' 51.8" N
Longitude	121° 31' 20.2" W

To reach this discharge location, a 20 inch pipeline must be constructed from the WWTP effluent pump station to a headbox on the levee on the south side of Old River approximately 300 feet downstream of its confluence with the Wicklund Cut. From there, effluent must be conveyed through a 36 inch pipeline to a junction box and effluent diffuser at the discharge location defined above. Attached Figure 01 shows a profile of the Old River and the effluent diffuser at this location, taken from the effluent pipeline construction drawings and identified as pipeline Station 54+54. Both profiles on this figure were derived from actual bathymetric survey data, and are shown at equal horizontal and vertical scale (no vertical scale expansion).

Proposed Permit Outfall Relocation

The 36-inch effluent pipeline portion from the first headbox (pipeline Sta. 25+25) to the permit outfall location must be constructed on top of the existing levy (3-ft. minimum burial) and consideration was given to whether or not it was necessary to convey the effluent the additional 2,900 feet or if the same mixing and impact on the Old River could be achieved by discharging at the first headbox approximately 300 feet downstream of the Wicklund Cut. Mixing, dilution and environmental influences of such a change are discussed below. For comparison purposes, attached Figure 01 includes a profile of the Old River and the effluent diffuser at this closer location, taken from the effluent pipeline construction drawings and identified as pipeline Station 25+25

Tidal Dilution Study Addendum Memo

The NPDES renewal application documents currently in possession by the Board include a report entitled *Tidal Dilution Study of the Mountain House Wastewater Treatment Plant Discharge into Old River*, performed by Jones & Stokes and dated September 2005. Jones & Stokes revisited their study and provided a memorandum as an addendum to the original study regarding the impacts of changing the outfall location from its current permit location to the proposed location just downstream of Wicklund Cut. Jones & Stokes concluded that all mixing and dilution scenarios would be exactly the same if the location were changed. The Addendum memorandum is attached.

PROPOSED MODIFICATION OF OLD RIVER MONITORING POINTS

Monitoring Points in Tentative WDR 's

Old River monitoring points currently identified in the tentative WDR 's are shown aerially in attached Figure 02. They are identified as follows:

- R-001, approximately 500 feet downstream of permit outfall001
- R-002, same as permit outfall 001 but at midstream
- R-003, approximately 1000 feet upstream of permit outfall 001 and 700 feet upstream of the Wicklund Cut confluence
- R-004, in the Wicklund Cut at Bethany Road near the water intake for the West side Irrigation District

Proposed Monitoring Point Modifications <u>without</u> Outfall Relocation

If the board chooses to leave the permit outfall 001 at its current location, described above, MHCSD requests that the following modifications be considered by the Board for the following reasons:

- Move point R-003 upstream to a point 500 feet upstream of outfall 001 and just upstream of Wicklund Cut. This will make it consistent with R-001 which is 500 feet downstream of outfall 001
- Eliminate point R-004 as it does not serve as an upstream or downstream monitoring point for outfall 001. Should the West Side Irrigation District apply to use their water for municipal purposes in addition to irrigation, that will be required to monitor their intake water for parameters similar to those in the Mountain House WDR monitoring requirements.

Proposed Monitoring Point Modifications <u>with</u> *Outfall Relocation*

If the board chooses to move permit outfall 001 to the proposed location 300 feet downstream of Wicklund Cut as described above, MHCSD requests that the following modifications be considered by the Board for the following reasons:

- R-003 can remain where it is currently located in the tentative WDR 's.
- R-001 can be moved to a point approximately 500 feet downstream of the new outfall 001 location.
- Eliminate point R-004 for the same reasons stated above.

Xrefs:
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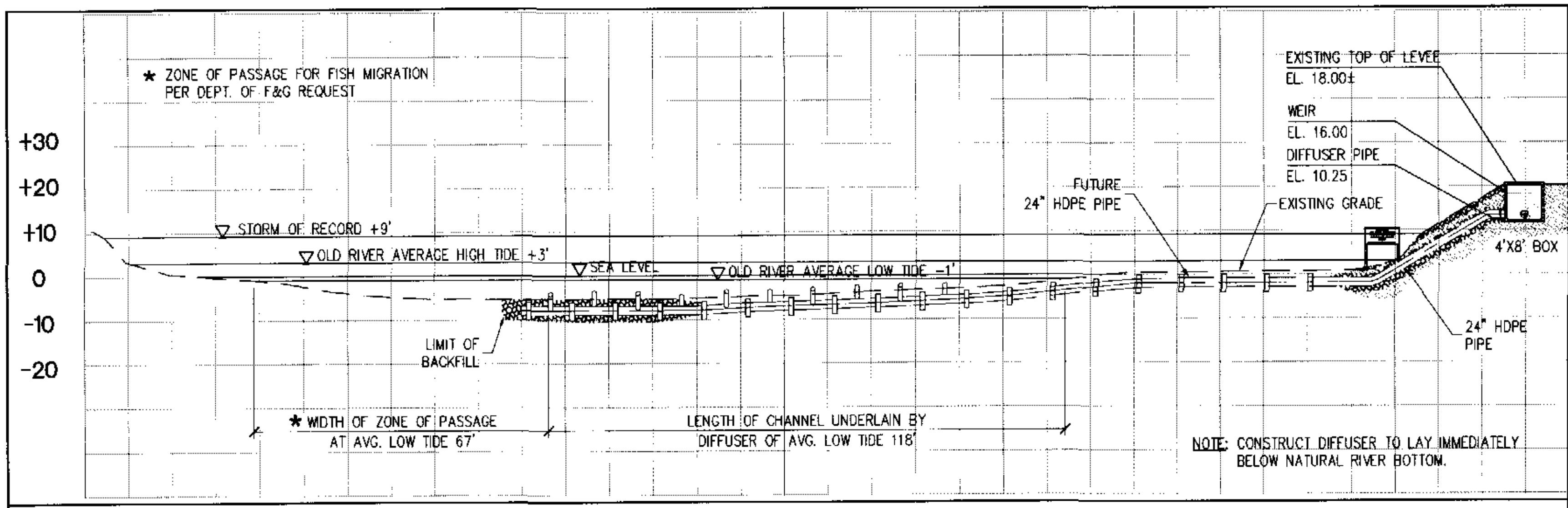
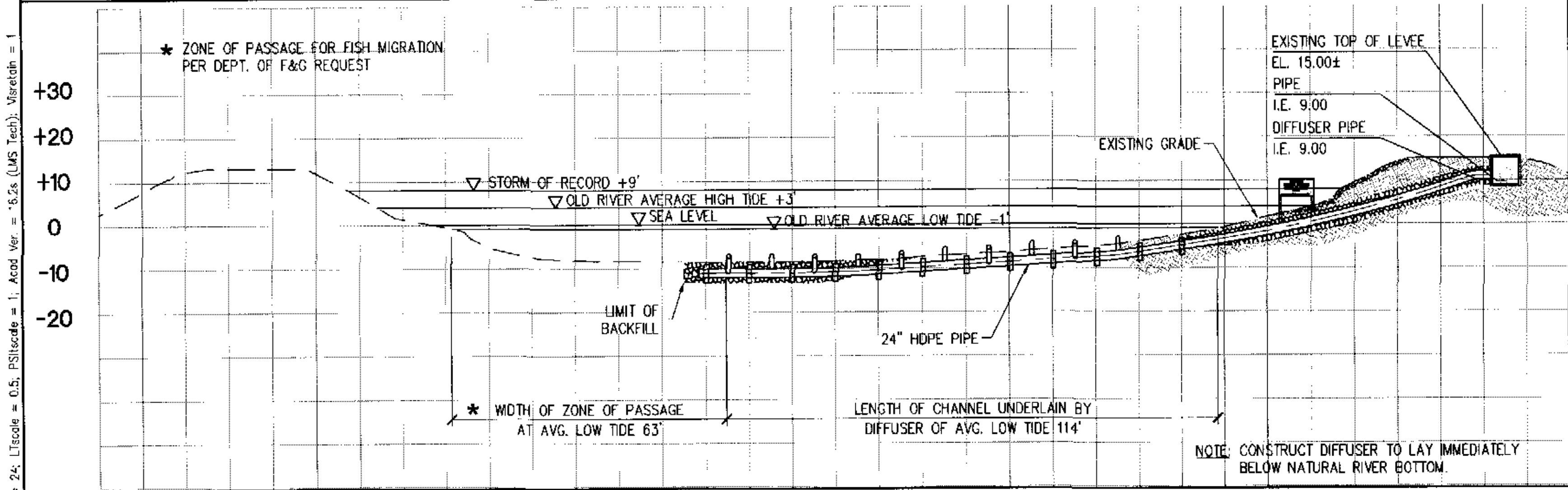


STA 25+25 EFFLUENT DIFFUSER PROFILE - PROPOSED RELOCATION

VER: 1"=25'
HOR. 1"=25'



STA 54+54 EFFLUENT DIFFUSER PROFILE - PERMIT LOCATION

VER: 1"=25'
HOR. 1"=25'

PACE
PACIFIC ADVANCED CIVIL ENGINEERING
17520 NEWHOPE STREET, SUITE 200
FOUNTAIN VALLEY, CA 92708
PH (714) 481-7300 FAX (714) 481-7299

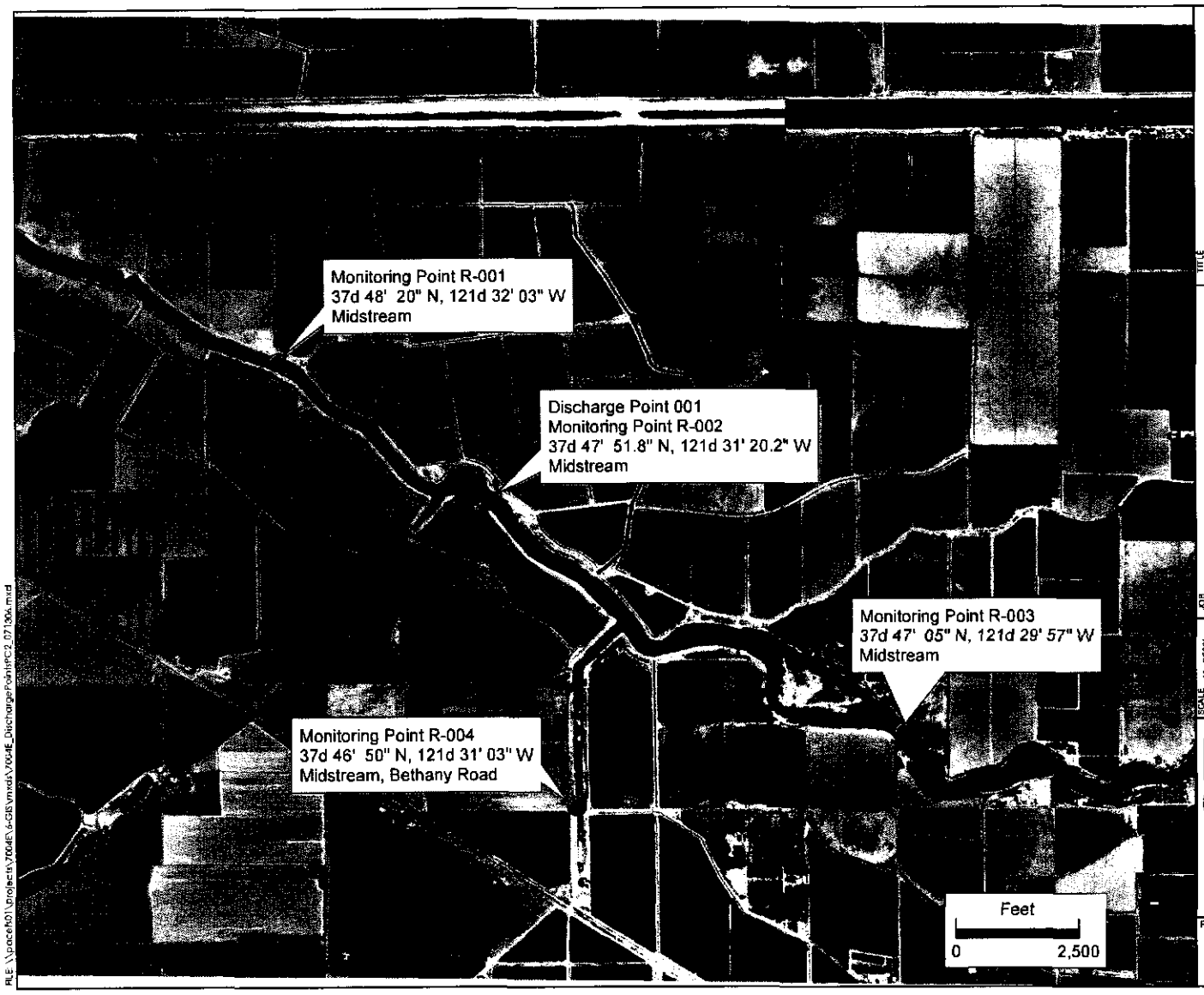
SCALE	1"=25'
DESIGNED	E.H.
DRAWN	P.B.
CHECKED	P.R.
DATE	7/13/06
JOB NO.	7004-E

JOB: MOUNTAIN HOUSE COMMUNITY SERVICE DISTRICT
TRACY CA

TITLE: EFFLUENT DIFFUSER PROFILES

FIGURE: 01

P:\7004E\Engineering\GlobalExhibits\7004-Eff-Diffuser-Sections.dwg - Tab: Layout1 By: pbui on Jul. 13, 2006 at 06:07 pm



TITLE
PERMIT
MONITORING
LOCATIONS

JOB
MOUNTAIN HOUSE
CA

SCALE 1"= 2500'
DESIGNED E.H.
DRAWING CD
CHECKED E.H.
DATE 07/13/06
JOB NO. 7004E

PACIFIC ADVANCED CIVIL ENGINEERING

FIGURE
02

FILE: \\pace01\Projects\7004E\6-GIS\mxds\7004E_DischargePointsPC2_071306.mxd

Jones & Stokes

Memorandum

Date: July 12, 2006

To: Paul Rydzynski, PACE Engineers

From: Russ Brown, Jones and Stokes

Subject: **Mountain House Diffuser Location**

Jones and Stokes prepared a report "**Tidal Dilution Study of the Mountain House Wastewater Treatment Plant Discharge into Old River**" in September 2005. This report describes the expected near field dilution in the vicinity of the proposed Mountain House Community wastewater treatment plant (WWTP) diffuser, and the far-field dilution that would occur in the tidal channels of the south Delta. Dr. Gary Litton from the University of the Pacific conducted the dye studies to measure the far-field transport and dilution of a pulse of rhodamine-WT dye that was released from the proposed diffuser location.

The proposed discharge location in the Waste Discharge Requirement permit is just upstream of Mountain House Creek. The mouth of Mountain House Creek is approximately 2 miles upstream of the Tracy Pumping Plant intake for the Central Valley Project (CVP) Delta-Mendota Canal and about 1 mile upstream of a temporary rock barrier known as the Old River DMC barrier. The City of Tracy also discharges its treated wastewater into Old River, about 8 miles upstream of the Mountain House discharge site.

Mountain House Community Services District would like to move the diffuser upstream in Old River about 0.8 miles, to just downstream of Wicklund Cut. There will be no expected changes in the near-field diffuser dilution, nor in the far-field tidal transport and mixing of the Mountain House WWTP effluent. The diffuse would be moved less than 1 mile upstream. The channel depth and width are very similar at these two locations, so the design of the diffuser would be identical. The near-field dilution and mixing patterns will be nearly identical for a diffuser located adjacent to Wicklund Cut as for the diffuser evaluated adjacent to Mountain House Creek.

The tidal flows are nearly identical at these two locations, so the far-field transport and dilution that is governed by tidal flows will be almost the same. The tidal transport modeling used the DWR DSM2 model. Both diffuser location are located within the same channel simulated in the model (channel 77). Therefore no changes in the far-field tidal transport and mixing are expected. Therefore, all results from the dye studies and from the modeling evaluation would be the same for both diffuser locations.

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